

Attached document 1 (Type: NCH) shows that the probe used in measurement of surface roughness in our invention has tip radius of curvature of less than 10 nm.

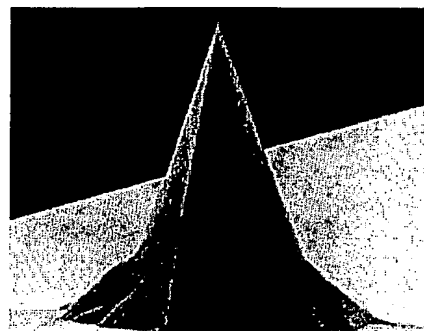
Please refer to attached our English specification, p.19, line 20-26, particularly, line 24 (cantilever NCH)

**Type: NCH****Non-contact / Tapping™ mode - High resonance frequency**

NanoWorld Pointprobe® NCH sensors are designed for non-contact or tapping™ mode imaging. This sensor type combines high operation stability with outstanding sensitivity and fast scanning ability. All sensors of the Pointprobe® series are made from monolithic silicon which is highly doped to dissipate static charge. They are chemically inert and offer a high mechanical Q-factor for high sensitivity. The tip is shaped like a polygon based pyramid with a height of 10-15 µm.

Additionally this sensor offers typical tip radius of curvature of less than 10 nm.

Technical Data	Value	Range*
Thickness	4 µm	3.5 - 4.5
Mean Width	30 µm	25 - 35
Length	125 µm	120 - 130
Force Constant	42 N/m	21 - 78
Resonance Frequency	320 kHz	250 - 390



Order Code	Quantity	Data Sheet
NCH-10	10	yes
NCH-20	20	yes
NCH-50	50	no
NCH-W	380	yes

* Typical values

For applications requiring lower resonance frequencies or a cantilever length exceeding 125 µm we recommend our Pointprobe® type NCL.

For more information contact: info@nanoworld.com

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